

ABSTRACT OF THE DISCLOSURE

A mechanical breathing aid has first and second inlets respectively connectable to a source of air and a source of oxygen. A mixing location is in gaseous communication with the first and second inlets, at which controlled amounts of air and oxygen from the respective inlets are mixed. An acoustic analyzer operates during a measurement procedure to access a moisture content value for air from the source of air, to generate acoustic velocity-related information from acoustic energy interaction with the breathing gas, and to determine therefrom an oxygen content. The analyzer operates during a calibration procedure to generate acoustic velocity-related information from acoustic energy interaction with air from the source of air, and to determine therefrom an oxygen content value for the air from which is determined a moisture content value for air.

CH1\ 4112356.1